Sea Grant Michigan NEWS RELEASE
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Fewer Fatalities Correspond with Cooler Temps in 2014

Throughout the 2014 swim season, cool air and water temperatures across the Great Lakes region led to below-average numbers of current-related incidents. There were 6 fatalities and 12 rescues related to currents on the Great Lakes, which is below the 12-year average of 12 fatalities and 25 rescues per year.

As is typical, the majority of the 2014 incidents occurred along Lake Michigan. On average from 2002-2014, Lake Michigan had 25 incidents per year, while Lake Erie had 5 incidents per year, Lake Superior had 3 incidents and Huron and Ontario average 1 to 1.5 per year, respectively.

The data for 2014 has now been updated in the Great Lakes Current Incident Database, available at DangerousCurrents.org. The database was developed and is maintained by Michigan Sea Grant and National Weather Service (NWS). Megan Dodson, a NWS meteorologist, gathers the statistics for the database and provides yearly swim season assessments of conditions related to currents.

Dodson noted the cool weather influenced not just the below-average number of incidents, but where they happened too.

"A majority of the current-related incidents in 2014 occurred near river mouths, which is unusual when compared with past years," she said. "The cooler air and water temperatures may have driven beachgoers to swim near river mouths and other outlets, where the water is much warmer. However, there are currents present that can be strong and vary depending on the flow of the outlet and the waves at the beach. While these currents are most dangerous during times of high waves, they can still be strong despite calmer lake conditions — as we saw during the 2014 swim season."

Stay safer in the water by following this advice, based on data gathered over 12 years:

1. **Steer Clear of the Pier —** Nearly 60 percent of fatalities and rescues in the Great Lakes database occur near breakwalls/piers. Structural currents are nearly always present near these features, even during low waves. In addition to the strong current, breaking waves can bounce off the structure, making swimming nearly impossible.
2. **Stay Dry When Waves are High —** Nearly 85 percent of fatalities and rescues in the Great Lakes database occur when waves are 3 to 5 feet or greater. Waves on the Great Lakes are different from the ocean in that they approach the shoreline in rapid succession, making it difficult to swim. Additionally, strong rip currents are more likely once waves get above 3 feet. The combination of quickly approaching waves and strong currents create extremely dangerous conditions for swimmers.
3. **Don't Swim In the Outlet —** Nearly 40 percent of the 2014 incidents were outlet-current related, meaning the victim was pushed out into the lake by water flowing from a river mouth or similar outlet that emptied into the lake.

For more information, see:

- DangerousCurrents.org
- The 2014 Swim Season Report - (URL: www.crh.noaa.gov/iwx/?n=glcid_2014)
- All Swim Season Reports (URL: www.crh.noaa.gov/iwx/?n=glcid_seasonalsummaries)

More About the Great Lakes Current Incident Database

The Great Lakes Current Incident Database was developed by the NOAA National Weather Service (NWS) and Michigan Sea Grant in 2013. The NWS provides data about fatalities and rescues annually.

Incidents are included in the database only if a current was noted as a primary or partial cause of the incident. Verification that the incident is related to a current (as opposed to only high waves or a health problem) is attempted when the sole report of the incident is from a media article that does not contain direct quotes from law enforcement, beach officials or eyewitnesses.

Typically confirmation of the incident is obtained from contacting beach managers, park services, eyewitnesses, police officers, those rescued during the incident or rescuers involved with the incident, such as the U.S. Coast Guard or a local fire department. In cases where the victim was rescued and in good health, attempts are made to contact him or her for an interview. This method (or an interview with those in the water with the victim) is preferred so a detailed account of the incident is on record.

The purpose of the database is to learn the locations where dangerous currents form and to learn what weather and wave conditions lead to current development. Statistics from the database are used for education, research and raising public awareness of dangerous currents on the Great Lakes.

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Dangerous Current Regional Outreach Project
Dangerous Current awareness is part of a state and regional effort led by Michigan Sea Grant in collaboration with the NOAA-National Weather Service, the Michigan Department of Natural Resources, Michigan Technological University, the Great Lakes Sea Grant Network and others. The Michigan Department of Environmental Quality Coastal Zone Management Program (MDEQ-CZM) and the NOAA Coastal Storms Program is supporting state and regional water safety efforts.
www.DangerousCurrents.org

Michigan Sea Grant
Michigan Sea Grant helps to foster economic growth and protect Michigan's coastal, Great Lakes resources through research, education and outreach. A collaborative effort of the University of Michigan and Michigan State University, MSG is part of the NOAA-National Sea Grant network of 32 university-based programs around the country.
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